

IFW

Docket No. 71342-PCT-US/JPW/GJG/ALW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Zhongyi Li et al.
Serial No. : 10/577,564
Filed : April 26, 2006
For : RICE AND RICE PRODUCTS THEREOF HAVING
STARCH WITH AN INCREASED PROPORTION OF
AMYLOSE

1185 Avenue of The Americas
New York, New York 10036
September 12, 2006

Commissioner for Patents
P.O. BOX 1450
Alexandria, VA 22313-1450

Sir:

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

In accordance with their duty of disclosure under 37 C.F.R. §1.56, applicants would like to direct the Examiner's attention to the following documents which are listed on Form PTO-1449 (**Exhibit A**) and are also listed below. In accordance with 37 C.F.R. §1.92(a)(2)(ii), copies of U.S. Patents and U.S. Patent Application Publications need not be provided. Accordingly, copies of documents listed below as items 1-19 are not submitted herewith. Copies of documents listed below as items 20-98 are attached hereto as **Exhibits 1-79**.

Applicants: Zhongyi Li et al.
Serial No.: 10/577,564
Filed : April 26, 2006
Page 2 of 15 of Information Disclosure Statement

1. U.S. Patent No. 4,770,710, issued September 13, 1988, Friedman et al.;
2. U.S. Patent No. 6,013,861 issued January 11, 2000, Bird et al.;
3. U.S. Patent No. 6,303,174, issued October 16, 2001; McNaught et al.;
4. U.S. Patent No. 6,307,125, issued October 23, 2001 (Block et al.)
5. U.S. Patent No. 6,376,749, issued April 23, 2002, Broglie et al.;
6. U.S. Patent No. 6,483,009, issued November 19, 2002, Poulsen et al.;
7. U.S. Patent No. 6,734,339, issued May 11, 2004, Block et al.;
8. U.S. Patent No. 6,897,354, issued May 24, 2005, Yamamori et al.;
9. U.S. Patent No. 6,903,255, issued June 7, 2005, Yamamori et al.;
10. U.S. Patent No. 7,001,771, issued February 21, 2006 Morell et al.;

Applicants: Zhongyi Li et al.
Serial No.: 10/577,564
Filed : April 26, 2006
Page 3 of 15 of Information Disclosure Statement

11. U.S. Patent No. 7,041,484, issued May 9, 2006, Baga et al.;
12. U.S. Published Application No. US 2006-0035379, published February 16, 2006 (U.S. Serial No. 11/231,599 filed September 21, 2005);
13. U.S. Published Application No. 2004-0204579, published October 14, 2004 (U.S. Serial No. 10/818,624, filed April 5, 2004);
14. U.S. Published Application No. US 2006-0010517, published January 12, 2006 (U.S. Serial No. 11/114,630, filed June 6, 2005);
15. U.S. Published Application No. US 2005-0071896, published March 31, 2005 (U.S. Serial No. 10/881,808, filed May 9, 2003);
16. U.S. Published Application No. US 2004-0199942, published October 7, 2004 (U.S. Serial No. 10/416,439, filed December 5, 2003);
17. U.S. Published Application No. US 2004-0060083, published March 25, 2004 (U.S. Serial No. 10/434,893, filed May 9, 2003);
18. U.S. Serial No. 11/324,063, filed December 30, 2005;
19. U.S. Serial No. 11/417,330, filed May 2, 2006;

Applicants: Zhongyi Li et al.
Serial No.: 10/577,564
Filed : April 26, 2006
Page 4 of 15 of Information Disclosure Statement

20. PCT/AU2000/00385, filed April 28, 2000 (WO 00/66745, published September 11, 2000);
21. PCT/US96/19678, filed December 12, 1996, (WO 97/22703, published June 26, 1997);
22. PCT/AU01/00175, filed February 21, 2001 (WO 01/062934, published August 30, 2001);
23. PCT/AU2004/001517, filed October 27, 2004 (WO 2005/040381, published June 5, 2005);
24. PCT/AU01/01452, filed November 9, 2001 (WO 02/37955, published May 16, 2002);
25. PCT/CA00/01276, filed October 27, 2000, (WO 01/32886, published May 10, 2001);
26. PCT/GB99/03011, filed September 9, 1999, (WO 00/015810, published March 23, 2000);
27. GB 2 360 521, published September 26, 2001;
28. Abel, G.J.W. et al., "Cloning and functional analysis of a cDNA encoding a novel 139 kDa Starch Synthase from Potato (*solanum tuberosum* L.)," Plant J. 10(6): 981-991 (1996);
29. Ainsworth, C. et al., "Expression, organization and structure of the genes encoding the waxy protein (granule-bound starch synthase) in wheat," Plant Mol. Biol. 22:67-82 (1993);

Applicants: Zhongyi Li et al.
Serial No.: 10/577,564
Filed : April 26, 2006
Page 5 of 15 of Information Disclosure Statement

30. Baba, T. et al., "Identification, cDNA cloning and gene expression of soluble starch synthase in rice (*Oryza sativa* L.) Immature Seeds," Plant Physiol. 103:565-573 (1993);
31. Banks et al., "Studies on Starches of High Amylose Content," Starch 26: 289-300 (1974);
32. Batey and Curtin, "Measurement of Amylose/Amylopectin Ratio by High-Performance Liquid Chromatography," Starch 48: 338-344 (1996);
33. Blauth et al., "Identification of Mutator Insertional Mutants of Starch -Branching Enzyme 2a in Corn," Plant Physiology 125:1396-1405 (2001);
34. Boyer and Preiss, "Evidence for Independent Genetic Control of the Multiple Forms of Maize Endosperm Branching Enzymes and Starch Synthases," Plant Physiology 67: 1141-1145 (1981);
35. Buleon et al., "Starch Granules: Structure and Biosynthesis," International Journal of Biological Macromolecules 23: 85-112 (1998);
36. Craig et al., "Mutations in the Gene Encoding Starch Synthase II Profoundly Alter Amylopectin Structure in Pea Embryos," The Plant Cell 10:413-426 (1998);

Applicants: Zhongyi Li et al.
Serial No.: 10/577,564
Filed : April 26, 2006
Page 6 of 15 of Information Disclosure Statement

37. Denyer, K. et al., "Identification of Multiple Isoforms of Soluble and Granule Bound Starch Synthase in Developing Wheat Endosperm," Planta 196: 256-265 (1995);
38. Dry, I. et al., "Characterization of cDNAs encoding two isoforms of granule-bound synthase which show differential expression in developing storage organs of pea and potato," Plant J. 2(2): 193-202 (1992);
39. Edwards et al., "Biochemical and Molecular Characterization of a Novel Starch Synthase from Potato Tubers," Plant J. 8(2): 283-294 (1995);
40. Flipse et al., "Introduction of Sense and Antisense cDNA for Branching Enzyme in the Amylose-Free Potato Mutant Leads to Physico-Chemical Changes in the Starch," Planta 198: 340-347 (1996);
41. Fujita et al., "Grain and Starch Characteristics of the Double Recessive Lines for Amylose-free and High Amylose Gene in Barley," Breeding Science 49: 217-219 (1999);
42. Gao et al., "Triticum aestivum mRNA for Starch Synthase IIa-2 (wSs2a-2." EMBL Abstract Accession No. AJ269503, July 6, 2000;
43. Gao et al., "Characterization of dull 1, a Maize Gene Coding for a Novel Starch Synthase," Plant Cell 10:399-412 (1998);

Applicants: Zhongyi Li et al.
Serial No.: 10/577,564
Filed : April 26, 2006
Page 7 of 15 of Information Disclosure Statement

44. Gao and Chibbar, "Isolation, Characterization, and Expression Analysis of Starch Synthase IIa cDNA from wheat (*Triticum aestivum* L.)," Genome 43:768-775 (2000);
45. Goering and DeHass, "A Comparison of the Properties of Large- and Small-Granule Starch Isolated from Several Isogenic Lines of Barley," Cereal Chemistry 51:573-578 (1974);
46. Harn et al., "Isolation and Characterization of the zSSIIA and zSSIIb Starch Synthase cDNA Clones from Maize Endosperm," Plant Mol. Biol. 37:639-649 (1998);
47. Holmes et al., Henderson's Dictionary of Biological Terms, 9th Ed., Van Nostrand Reinhold Co., New York, 1979, page 218;
48. Klosgen, et al., "Molecular Analysis of the Waxy Locus of *Zea mays*," Mol. Gen. Genet. 203: 237-244 (1986);
49. Knight, et al., "Molecular Cloning of Starch Synthase I from Maize (w64) Endosperm and Expression in *Escherichia coli*," Plant J. 14(5): 613-622 (1998);
50. Kull et al., "Genetic Engineering of Potato Starch Composition: Inhibition of Amylose Biosynthesis in Tubers From Transgenic Potato Lines by the Expression of Antisense Sequences of the Gene for Granule-bound Starch Synthase," J. Genet. Breed. 49: 69-76 (1995)

Applicants: Zhongyi Li et al.
Serial No.: 10/577,564
Filed : April 26, 2006
Page 8 of 15 of Information Disclosure Statement

51. Jansson et al., "Cloning, Characterization and Modification of Genes Encoding Starch Branching Enzymers In Barley." *Starch: Structure and Functionality*. Royal Society of Chemistry, London, pgs. 196-203 (1997);
52. Jarvi and Eslick, "Shrunken Endosperm Mutants in Barley," Crop Science 15:363-366 (1975);
53. Li et al., "Triticum aestivum Starch Synthase IIA mRNA, Complete cds," EMBL Abstract Accession No. AF155217, Sept 7, 1999;
54. Li et al., "The Localization and Expression of the Class II Starch Synthases of Wheat," Plant Physiology 120:1147-1155 (1999);
55. Li et al., "Cloning and Characterization of a Gene Encoding Wheat Starch Synthase I," Theor. Appl. Genet. 98: 1208-1216 (1999);
56. Mazzolini et al., "Assaying synthetic ribozymes in plants: high-level expression of a functional hammerhead structure fails to inhibit target gene activity in transiently transformed protoplasts," Plant Mol. Biol. 20: 715-731 (1992);
57. Miao et al., "Evaluation And Characterization of an Endosperm-Specific sbeIIa Promoter in Wheat," Chinese Science Bulletin 49(6): 579-585 (2004);

Applicants: Zhongyi Li et al.
Serial No.: 10/577,564
Filed : April 26, 2006
Page 9 of 15 of Information Disclosure Statement

58. Mizuno et al., "Alteration of the Structural Properties of Starch Components by the Lack of an Isoform of Starch Branching Enzyme in Rice Seeds," J. Biol. Chem. 268(25): 19084-19091 (1993);
59. Morell et al., "The Biochemistry and Molecular Biology of Starch Synthesis in Cereals," Aust. J. Plant. Physiol. 22: 647-660 (1995);
60. Morell et al., "Barley *sex6* Mutants Lack Starch Synthase *ii*a Activity and Contain a Starch with Novel Properties," The Plant Journal 34:173-185 (2003);
61. Myers et al., "Recent Progress toward Understanding Biosynthesis of the Amylopectin Crystal," Plant Physiology 122: 989-997 (2000);
62. Nishi et al., "Biochemical and Genetic Analysis of the Effects of Amylose-Extender Mutation in Rice Endosperm." Plant Physiology 127:459-472 (2001);
63. Okagaki R.J., "Nucleotide Sequence of a Long cDNA from the Rice Waxy Gene," Plant Molecular Biology 19: 513-516 (1992);
64. Puchta, "Gene Replacement by Homologous Recombination in Plants," Plant Mol. Biol. 48: 173-182 (2002);
65. Rahman, Sadequr et al., "Comparison of Starch-Branched Enzyme Genes Reveals Evolutionary Relationships Among Isoforms. Characterization of a Gene for Starch-Branched

Applicants: Zhongyi Li et al.
Serial No.: 10/577,564
Filed : April 26, 2006
Page 10 of 15 of Information Disclosure Statement

Enzyme IIa from the Wheat D Genome Donor *Aegilops tauschii*, " Plant Physiology 125: 1314-1324 (2001);

66. Rahman, S. et al., "A Complex Arrangement of Genes at a Starch Branching Enzyme I Locus in the D-genome Donor of Wheat," Genome 40: 465-474 (1997);
67. Rahman, S. et al., "The Major Proteins of Wheat Endosperm Starch Granules," Aust. J. Plant Physiol., 22:793-803 (1995);
68. Rahman, S. et al., "Characterisation of a Gene Encoding Wheat Endosperm Starch Branching Enzyme-I," Theor. Appl. Genet. 98: 156-163 (1999);
69. Safford, et al., "Consequences of Antisense RNA Inhibition of Starch Branching Enzyme Activity on Properties of Potato Starch," Carbohydrate Polymers 35: 155-168 (1998);
70. Sathish et al. "Cloning and Anti-Sense RNA Constructs of a Startch Branching Enzyme Gene From Barley Endosperm." *Photosynthesis: from Light to Biosphere Vol. V.* P. Mathis (ed.) pgs. 313-316 (1995);
71. Schondelmaier et al., "Genetical Studies in the Mode of Inheritance and Localization of the amol (High Amylose) Gene in Barley," Plant Breeding 109: 274-280 (1992);

Applicants: Zhongyi Li et al.
Serial No.: 10/577,564
Filed : April 26, 2006
Page 11 of 15 of Information Disclosure Statement

72. Schwall, et al., " Production of Very-High-Amylose Potato Starch by Inhibition of SBE A and B," Nature Biotechnology 18: 551-554 (2000);
73. Shannon and Garwood, "In Starch: Chemistry and Technology," Whistler et al., eds, Academic Press, Orlando, FL, 25-86 (1984);
74. Sidebottom, et al., "Characterization of the Difference of Starch Branching Enzyme Activities in Normal and Low-Amylopectin Maize during Kernel Development," Journal of Cereal Science 27: 279-287 (1998);
75. Sun et al., "Identification of Four Starch-Branching Enzymes in Barley Endosperm: Partial Purification of forms I, IIa and IIb." New Phytol. 137:215-222 (1997);
76. Sun et al., "The Two Genes Encoding Startch-Branching Enzymes IIa and IIb Are Differentially Expressed in Barley," Plant Physiology 118:37-49 (1998);
77. Sundberg et al., "Glycaemic Responses and Hyopcholesterolaemic Effects of High-Amylose Barley Diets on Broiler Chicks," J. Sci. Food Agric. 76: 457-463 (1998);
78. Takaoka, M. et al., "Structural characterization of high molecular weight starch granule-bound proteins in wheat (*Triticum aestivum* L.)," J. Agric. Food Chem. 45: 2929-2934 (1997);

Applicants: Zhongyi Li et al.
Serial No.: 10/577,564
Filed : April 26, 2006
Page 12 of 15 of Information Disclosure Statement

79. Terada et al., "Efficient Gene Targeting by Homologous Recombination in Rice," Nature Biotech. 20: 1030-1034 (1997);
80. Thomas, et al., "Size Constraints for Targeting Post-Transcriptional Gene Silencing and for RNA-directed Methylation in *Nicotiana benthamiana* Using a Potato Virus X Vector," Plant J. 25: 417-425 (2001);
81. Van der Leij et al., "Sequence of the Structural Gene for Granule-Bound Starch Synthase of Potato (*Solanum Tuberosum* L.) and Evidence for a Single Point Deletion in the amf allele," Mol. Gen. Genet. 228: 240-248 (1991);
82. Vrinten and Nakamura, "Wheat Granule-Bound Starch Synthase I and II Are Encoded by Separate Genes That Are Expressed in Different Tissues," Plant Physiology 122:255-263 (2000);
83. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [Online Database] National Germplasm Resources Laboratory, Beltsville, Maryland (<http://www.ars-grin.gov/npgs/>), GRIN System Accession No. GSHO 2476, 23 June 1997);
84. Walker and Meritt, "Genetic Control of Abnormal Starch Granules and High Amylose Content in a Mutant of Glacier Barley," Nature 221:482-484 (1969);
85. Yamamori et al., "Genetic Elimination of a Starch Granule Protein, SGP-1, of Wheat Generates an Altered Starch with

Applicants: Zhongyi Li et al.
Serial No.: 10/577,564
Filed : April 26, 2006
Page 13 of 15 of Information Disclosure Statement

Apparent High Amylose," Theor. Appl. Genet. 101: 21-29
(2000);

86. Yamamori and Endo, "Variation of Starch Granule Proteins and Chromosome Mapping of Their Coding Genes in Common Wheat," Theor. Appl. Genet. 93: 275-181 (1996);
87. Yamamori, "Selection of a Wheat Lacking a Putative Enzyme for Starch Synthesis, SGP-1," Proc. 9th In Wheat Gen. Symp. 4:300-302 (1998);
88. Abel et al., GenBank Accession #Y10416 (January 1997) S. Tuberosum mRNA for Soluble Starch Synthase;
89. Bhullar et al., GenBank Accession #CAB40374 (April 1999) Starch synthase isoform SS III [Vigna unguiculata];
90. Block et al., GenBank Accession #U48227 (June 1996) Triticum aestivum soluble starch synthase mRNA, partial cds.;
91. D'Hulst et al., GenBank Accession #AAC17969 (November 2001) Granule-bound starch synthase I precursor [Chlamydomonas reinhardtii];
92. Gao et al., GenBank Accession #AAC14014 (April 1998) Starch synthase DULL 1 [Zea mays];
93. Gao et al., GenBank Accession #AAC14015 (April 1998) Starch synthase DULL 1 [Zea mays];

Applicants: Zhongyi Li et al.
Serial No.: 10/577,564
Filed : April 26, 2006
Page 14 of 15 of Information Disclosure Statement

94. Gao et al., GenBank Accession #CAB86618 (April 2002)
Starch synthase Iia-1 [*Triticum aestivum*];
95. Gao et al., GenBank Accession #AJ269502 (April 2002)
Triticum aestivum mRNA for starch synthase II a-1 (wSs2a-1 gene);
96. Rahman et al., GenBank Accession #AF076680 (May 1999)
Aegilops tauschii starch branching enzyme-I (SBE-I) gene, complete cds.;
97. Walter et al., GenBank Accession #AAB17085 (October 1996)
Starch Synthase; and
98. Walter et al., GenBank Accession #U66377 (October 1996)
Triticum aestivum soluble starch synthase mRNA, partial cds.

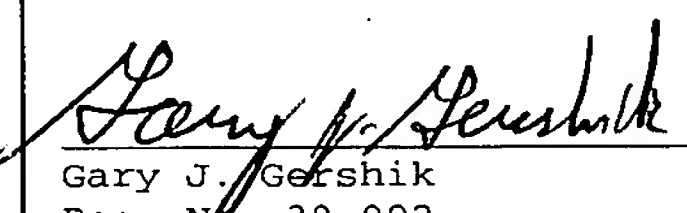
Applicants request that the Examiner review the references and make them of record in the subject application.

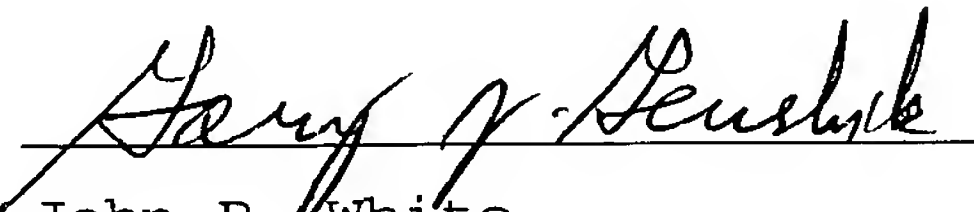
Applicants: Zhongyi Li et al.
Serial No.: 10/577,564
Filed : April 26, 2006
Page 15 of 15 of Information Disclosure Statement

No fee is deemed necessary in connection with the filing of this Information Disclosure Statement. However, if any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

Respectfully submitted,

I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to:
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

 9/12/06
Gary J. Gershik Date
Reg. No. 39,992


John P. White
Registration No. 28,678
Gary J. Gershik
Registration No. 39,992
Attorneys for Applicants
Cooper & Dunham LLP
1185 Avenue of the Americas
New York, NY 10036
(212) 278-0400

Form PTO-1449 SEP 15 2006

U.S. Department of Commerce
Patent and Trademark Office

Application Number	10/577,564
Filing Date	April 26, 2006
First Named Inventor	Zhongyi Li et al.
Art Unit	
Examiner Name	
Attorney Docket No.	71342-PCT-US

INFORMATION DISCLOSURE STATEMENT
 (Use several sheets if necessary)

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		U.S. 4,770,710	09-13-1988	Friedman et al.
		U.S. 6,013,861	01-11-2000	Bird et al.
		U.S. 6,303,174	10-16-2001	McNaught et al.
		U.S. 6,307,125	10-23-2001	Block et al.
		U.S. 6,376,749	4-23-2002	Broglie et al.
		U.S. 6,483,009	11-19-2002	Poulsen et al.
		U.S. 6,734,339	05-11-2004	Block et al.
		U.S. 6,897,354	05-24-2005	Yamamori et al.
		U.S. 6,903,255	06-07-2005	Yamamori et al.
		U.S. 7,001,771	02-21-2006	Morell et al.
		U.S. 7,041,484	05-09-2006	Baga et al.
		U.S. 2006/0035379	02-16-2006	
		U.S. 2004/0204579	10-14-2004	
		U.S. 2006/0010517	01-12-2006	
		U.S. 2005/0071896	03-31-2005	
		U.S. 2004/0199942	10-07-2004	
		U.S. 2004/0060083	03-25-2004	
		U.S. 11/324,063		Bird et al.
		U.S. 11/417,330		Bird et al.

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶
	1	WO 00/66745	09-11-2000		
	2	WO 97/22703	06-26-1997		
	3	WO 01/062934	08-30-2001		
	4	WO 2005/040381	06-05-2005		
	5	WO 02/37955	05-16-2002		
	6	WO 01/32886	05-10-2001		

EXAMINER
SIGNATURE

DATE CONSIDERED

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds of Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English Language Translation is attached.

 Applicants: Zhongyi Li et al.
 Serial No.: 10/577,564
 Filed: April 26, 2006
 Exhibit A

Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	Application Number	10/577,564
	Filing Date	April 26, 2006
	First Named Inventor	Zhongyi Li et al.
	Art Unit	
	Examiner Name	
	Attorney Docket No.	71342-PCT-US

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		U.S.		
		U.S.		
		U.S.		
		U.S.		
		U.S.		
		U.S.		
		U.S.		
		U.S.		
		U.S.		
		U.S.		
		U.S.		
		U.S.		
		U.S.		
		U.S.		
		U.S.		
		U.S.		
		U.S.		
		U.S.		
		U.S.		

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶
	7	WO 00/015810	03-23-2000		
	8	GB 2 360 521	09-26-2001		

**EXAMINER
SIGNATURE**
DATE CONSIDERED

***EXAMINER:** Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds of Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English Language Translation is attached.

Form PTO-1449		U.S. Department of Commerce Patent and Trademark Office		Application Number	10/577,564
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)				Filing Date	April 26, 2006
				First Named Inventor	Zhongyi Li et al.
				Art Unit	
				Examiner Name	
				Attorney Docket No.	71342-PCT-US
NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No.¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.			T²
	9	Abel, G.J.W. et al., "Cloning and functional analysis of a cDNA encoding a novel 139 kDa Starch Synthase from Potato (<i>solanum tuberosum</i> L.)," <u>Plant J.</u> 10(6): 981-991 (1996)			
	10	Ainsworth, C. et al., "Expression, organization and structure of the genes encoding the waxy protein (granule-bound starch synthase) in wheat," <u>Plant Mol. Biol.</u> 22:67-82 (1993)			
	11	Baba, T. et al., "Identification, cDNA cloning and gene expression of soluble starch synthase in rice (<i>oryza sativa</i> L.) Immature Seeds," <u>Plant Physiol.</u> 103:565-573 (1993)			
	12	Banks et al., "Studies on Starches of High Amylose Content," <u>Starch</u> 26: 289-300 (1974)			
	13	Batey and Curtin, "Measurement of Amylose/Amylopectin Ratio by High-Performance Liquid Chromatography," <u>Starch</u> 48: 338-344 (1996)			
	14	Blauth et al., "Identification of Mutator Insertional Mutants of Starch -Branching Enzyme 2a in Corn," <u>Plant Physiology</u> 125:1396-1405 (2001)			
	15	Boyer and Preiss, "Evidence for Independent Genetic Control of the Multiple Forms of Maize Endosperm Branching Enzymes and Starch Synthases," <u>Plant Physiology</u> 67: 1141-1145 (1981)			
	16	Buleon et al., "Starch Granules: Structure and Biosynthesis," <u>International Journal of Biological Macromolecules</u> 23: 85-112 (1998)			
	17	Craig et al., "Mutations in the Gene Encoding Starch Synthase II Profoundly Alter Amylopectin Structure in Pea Embryos," <u>The Plant Cell</u> 10:413-426 (1998)			
	18	Denyer, K. et al., "Identification of Multiple Isoforms of Soluble and Granule Bound Starch Synthase in Developing Wheat Endosperm," <u>Planta</u> 196: 256-265 (1995)			
	19	Dry, I. et al., "Characterization of cDNAs encoding two isoforms of granule-bound synthase which show differential expression in developing storage organs of pea and potato," <u>Plant J.</u> 2(2): 193-202 (1992)			
	20	Edwards et al., "Biochemical and Molecular Characterization of a Novel Starch Synthase from Potato Tubers," <u>Plant J.</u> 8(2): 283-294 (1995)			
EXAMINER SIGNATURE		DATE CONSIDERED			
<p>*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²Applicant is to place a checkmark here if English language Translation is attached.</p>					

Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office		Application Number 10/577,564 Filing Date April 26, 2006 First Named Inventor Zhongyi Li et al. Art Unit Examiner Name Attorney Docket No. 71342-PCT-US	
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)			
NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	21	Flipse et al., "Introduction of Sense and Antisense cDNA for Branching Enzyme in the Amylose-Free Potato Mutant Leads to Physico-Chemical Changes in the Starch," <u>Planta</u> 198: 340-347 (1996)	
	22	Fujita et al., "Grain and Starch Characteristics of the Double Recessive Lines for Amylose-free and High Amylose Gene in Barley," <u>Breeding Science</u> 49: 217-219 (1999)	
	23	Gao et al., "Triticum aestivum mRNA for Starch Synthase IIa-2 (wSs2a-2." EMBL Abstract Accession No. AJ269503, July 6, 2000	
	24	Gao et al., "Characterization of dull 1, a Maize Gene Coding for a Novel Starch Synthase," <u>Plant Cell</u> 10:399-412 (1998)	
	25	Gao and Chibbar, "Isolation, Characterization, and Expression Analysis of Starch Synthase IIa cDNA from wheat (Triticum aestivum L.)," <u>Genome</u> 43:768-775 (2000)	
	26	Goering and DeHass, "A Comparison of the Properties of Large- and Small-Granule Starch Isolated from Several Isogenic Lines of Barley," <u>Cereal Chemistry</u> 51:573-578 (1974)	
	27	Harn et al., "Isolation and Characterization of the zSSIa and zSSIb Starch Synthase cDNA Clones from Maize Endosperm," <u>Plant Mol. Biol.</u> 37:639-649 (1998)	
	28	Holmes et al., Henderson's Dictionary of Biological Terms, 9th Ed., Van Nostrand Reinhold Co., New York, 1979, page 218	
	29	Klosgen, et al., "Molecular Analysis of the Waxy Locus of Zea mays," <u>Mol. Gen. Genet.</u> 203: 237-244 (1986)	
	30	Knight, et al., "Molecular Cloning of Starch Synthase I from Maize (w64) Endosperm and Expression in Escherichia coli," <u>Plant J.</u> 14(5): 613-622 (1998)	
	31	Kull et al., "Genetic Engineering of Potato Starch Composition: Inhibition of Amylose Biosynthesis in Tubers From Transgenic Potato Lines by the Expression of Antisense Sequences of the Gene for Granule-bound Starch Synthase," <u>J. Genet. Breed.</u> 49: 69-76 (1995)	
	32	Jansson et al., "Cloning, Characterization and Modification of Genes Encoding Starch Branching Enzymers In Barley." <u>Starch: Structure and Functionality</u> . Royal Society of Chemistry, London, pgs. 196-203 (1997)	
EXAMINER SIGNATURE		DATE CONSIDERED	
<p>*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²Applicant is to place a checkmark here if English language Translation is attached.</p>			

Form PTO-1449		U.S. Department of Commerce Patent and Trademark Office		Application Number	10/577,564
				Filing Date	April 26, 2006
				First Named Inventor	Zhongyi Li et al.
				Art Unit	
				Examiner Name	
				Attorney Docket No.	71342-PCT-US
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)					
NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No.¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.			T²
	33	Jarvi and Eslick, "Shrunken Endosperm Mutants in Barley," <u>Crop Science</u> 15:363-366 (1975)			
	34	Li et al., "Triticum aestivum Starch Synthase IIA mRNA, Complete cds," EMBL Abstract Accession No. AF155217, Sept 7, 1999			
	35	Li et al., "The Localization and Expression of the Class II Starch Synthases of Wheat," <u>Plant Physiology</u> 120:1147-1155 (1999)			
	36	Li et al., "Cloning and Characterization of a Gene Encoding Wheat Starch Synthase I," <u>Theor. Appl. Genet.</u> 98: 1208-1216 (1999)			
	37	Mazzolini et al., "Assaying synthetic ribozymes in plants: high-level expression of a functional hammerhead structure fails to inhibit target gene activity in transiently transformed protoplasts," <u>Plant Mol. Biol.</u> 20: 715-731 (1992)			
	38	Miao et al., "Evaluation And Characterization of an Endosperm-Specific sbeIIa Promoter in Wheat," <u>Chinese Science Bulletin</u> 49(6): 579-585 (2004)			
	39	Mizuno et al., "Alteration of the Structural Properties of Starch Components by the Lack of an Isoform of Starch Branching Enzyme in Rice Seeds," <u>J. Biol. Chem.</u> 268(25): 19084-19091 (1993)			
	40	Morell et al., "The Biochemistry and Molecular Biology of Starch Synthesis in Cereals," <u>Aust. J. Plant. Physiol.</u> 22: 647-660 (1995)			
	41	Morell et al., "Barley sex6 Mutants Lack Starch Synthase iia Activity and Contain a Starch with Novel Properties," <u>The Plant Journal</u> 34:173-185 (2003)			
	42	Myers et al., "Recent Progress toward Understanding Biosynthesis of the Amylopection Crystal," <u>Plant Physiology</u> 122: 989-997 (2000)			
	43	Nishi et al., "Biochemical and Genetic Analysis of the Effects of Amylose-Extender Mutation in Rice Endosperm." <u>Plant Physiology</u> 127:459-472 (2001)			
	44	Okagaki R.J., "Nucleotide Sequence of a Long cDNA from the Rice Waxy Gene," <u>Plant Molecular Biology</u> 19: 513-516 (1992)			
EXAMINER SIGNATURE		22			
<p>*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²Applicant is to place a checkmark here if English language Translation is attached.</p>					

23

24

Form PTO-1449		U.S. Department of Commerce Patent and Trademark Office		Application Number	10/577,564
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)				Filing Date	April 26, 2006
				First Named Inventor	Zhongyi Li et al.
				Art Unit	
				Examiner Name	
				Attorney Docket No.	71342-PCT-US
NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No.¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.			T²
	45	Puchta, "Gene Replacement by Homologous Recombination in Plants," <u>Plant Mol. Biol.</u> 48: 173-182 (2002)			
	46	Rahman, Sadequr et al., "Comparison of Starch-Branching Enzyme Genes Reveals Evolutionary Relationships Among Isoforms. Characterization of a Gene for Starch-Branching Enzyme IIa from the Wheat D Genome Donor Aegilops tauschii," <u>Plant Physiology</u> 125: 1314-1324 (2001)			
	47	Rahman, S. et al., "A Complex Arrangement of Genes at a Starch Branching Enzyme I Locus in the D-genome Donor of Wheat," <u>Genome</u> 40: 465-474 (1997)			
	48	Rahman, S. et al., "The Major Proteins of Wheat Endosperm Starch Granules," <u>Aust. J. Plant Physiol.</u> , 22:793-803 (1995)			
	49	Rahman, S. et al., "Characterisation of a Gene Encoding Wheat Endosperm Starch Branching Enzyme-I," <u>Theor. Appl. Genet.</u> 98: 156-163 (1999)			
	50	Safford, et al., "Consequences of Antisense RNA Inhibition of Starch Branching Enzyme Activity on Properties of Potato Starch," <u>Carbohydrate Polymers</u> 35: 155-168 (1998)			
	51	Sathish et al. "Cloning and Anti-Sense RNA Constructs of a Starch Branching Enzyme Gene From Barley Endosperm." <u>Photosynthesis: from Light to Biosphere Vol. V. P. Mathis (ed.)</u> pgs. 313-316 (1995)			
	52	Schondelmaier et al., "Genetical Studies in the Mode of Inheritance and Localization of the am1 (High Amylose) Gene in Barley," <u>Plant Breeding</u> 109: 274-280 (1992)			
	53	Schwall, et al., "Production of Very-High-Amylose Potato Starch by Inhibition of SBE A and B," <u>Nature Biotechnology</u> 18: 551-554 (2000)			
	54	Shannon and Garwood, "In Starch: Chemistry and Technology," Whistler et al., eds, Academic Press, Orlando, FL, 25-86 (1984)			
	55	Sidebottom, et al., "Characterization of the Difference of Starch Branching Enzyme Activities in Normal and Low-Amylopectin Maize during Kernel Development," <u>Journal of Cereal Science</u> 27: 279-287 (1998)			
	56	Sun et al., "Identification of Four Starch-Branching Enzymes in Barley Endosperm: Partial Purification of forms I, IIa and IIb." <u>New Phytol.</u> 137:215-222 (1997)			
EXAMINER SIGNATURE		DATE CONSIDERED			
<p>*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²Applicant is to place a checkmark here if English language Translation is attached.</p>					

Form PTO-1449		U.S. Department of Commerce Patent and Trademark Office		Application Number	10/577,564
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)				Filing Date	April 26, 2006
				First Named Inventor	Zhongyi Li et al.
				Art Unit	
				Examiner Name	
				Attorney Docket No.	71342-PCT-US
NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No.¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.			T²
	57	Sun et al., "The Two Genes Encoding Startch-Branching Enzymes IIa and IIb Are Differentially Expressed in Barley," Plant Physiology 118:37-49 (1998)			
	58	Sundberg et al., "Glycaemic Responses and Hyopcholesterolaemic Effects of High-Amylose Barley Diets on Broiler Chicks," J. Sci. Food Agric. 76: 457-463 (1998)			
	59	Takaoka, M. et al., "Structural characterization of high molecular weight starch granule-bound proteins in wheat (Triticum aestivum L.)," J. Agric. Food Chem. 45: 2929-2934 (1997)			
	60	Terada at al., "Efficient Gene Targeting by Homologous Recombination in Rice," Nature Biotech. 20: 1030-1034 (1997)			
	61	Thomas, et al., "Size Constraints for Targeting Post-Transcriptional Gene Silencing and for RNA-directed Mehtylation in Nicotiana benthamiana Using a Potato Virus X Vector," Plant J. 25: 417-425 (2001)			
	62	Van der Leij et al., "Sequence of the Structural Gene for Granule-Bound Starch Synthase of Potato (Solanum Tuberosum L.) and Evidence for a Single Point Deletion in the amf allele," Mol. Gen. Genet. 228: 240-248 (1991)			
	63	Vrinten and Nakamura, "Wheat Granule-Bound Starch Synthase I and II Are Encoded by Separate Genes That Are Expressed in Different Tissues," Plant Physiology 122:255-263 (2000)			
	64	USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [Online Database] National Germplasm Resources Laboratory, Beltsville, Maryland (http://www.ars-grin.gov/npgs/), GRIN System Accession No. GSHO 2476, 23 June 1997)			
	65	Walker and Meritt, "Genetic Control of Abnormal Starch Granules and High Amylose Content in a Mutant of Glacier Barley," Nature 221:482-484 (1969)			
	66	Yamamori et al., "Genetic Elimination of a Starch Granule Protein, SGP-1, of Wheat Generates an Altered Starch with Apparent High Amylose," Theor. Appl. Genet. 101: 21-29 (2000)			
	67	Yamamori and Endo, "Variation of Starch Granule Proteins and Chromosome Mapping of Their Coding Genes in Common Wheat," Theor. Appl. Genet. 93: 275-181 (1996)			
EXAMINER SIGNATURE		48			
<p>*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²Applicant is to place a checkmark here if English language Translation is attached.</p>					

Form PTO-1449		U.S. Department of Commerce Patent and Trademark Office		Application Number	10/577,564
				Filing Date	April 26, 2006
				First Named Inventor	Zhongyi Li et al.
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)				Art Unit	
				Examiner Name	
				Attorney Docket No.	71342-PCT-US
NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No.¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.			T²
	68	Yamamori, "Selection of a Wheat Lacking a Putative Enzyme for Starch Synthesis, SGP-1," Proc. 9th In Wheat Gen. Symp. 4:300-302 (1998)			
	69	Abel et al., GenBank Accession #Y10416 (January 1997) S. Tuberosum mRNA for Soluble Starch Synthase			
	70	Bhullar et al., GenBank Accession #CAB40374 (April 1999) Starch synthase isoform SS III [Vigna unguiculata]			
	71	Block et al., GenBank Accession #U48227 (June 1996) Triticum aestivum soluble starch synthase mRNA, partial cds.			
	72	D'Hulst et al., GenBank Accession #AAC17969 (November 2001) Granule-bound starch synthase I precursor [Chlamydomonas reinhardtii]			
	73	Gao et al., GenBank Accession #AAC14014 (April 1998) Starch synthase DULL 1 [Zea mays]			
	74	Gao et al., GenBank Accession #AAC14015 (April 1998) Starch synthase DULL 1 [Zea mays]			
	75	Gao et al., GenBank Accession #AJ269502 (April 2002) Triticum aestivum MRNA for starch synthase II a-1 (wSs2a-1 gene)			
	76	Gao et al., GenBank Accession #CAB86618 (April 2002) Starch synthase Iia-1 [Triticum aestivum]			
	77	Rahman et al., GenBank Accession #AF076680 (May 1999) Aegilops tauschii starch branching enzyme-I (SBE-I) gene, complete cds.			
	78	Walter et al., GenBank Accession #AAB17085 (October 1996) Starch Synthase			
	79	Walter et al., GenBank Accession #U66377 (October 1996) Triticum aestivum soluble starch synthase mRNA, partial cds			
EXAMINER SIGNATURE		DATE CONSIDERED			
<p>*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²Applicant is to place a checkmark here if English language Translation is attached.</p>					